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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,143	10/05/2000	Rakesh Bhatia	042390.P5698D	2639

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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 04/22/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/684,143

Applicant(s)

Bhatia

Examiner

Atkinson

Art Unit

3743



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 1/16/03 & 7/16/02
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7-12, 17-21 and 27-32 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-12, 17-21 and 27-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 3743

*Response to Amendment*

Applicant's arguments have been fully considered but they are not persuasive.

*Specification*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

- (a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.
- (b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.
- © In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the originally filed specification fails to disclose the limitations of claims 7-12, 17-21 and 27-32.

Art Unit: 3743

***Claim Rejections - 35 USC § 112***

Claims 7-12, 17-21 and 27-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification fails to disclose the limitations of claims 7-12, 17-21 and 27-32.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-8 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by  
Gunnerson et al.

The patent of Gunnerson et al., in figures 1-3, discloses the claimed invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3743

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 9, 11, 21, 28 and 30 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. and Villaume. The patent of Gunnerson et al. discloses all the claimed features of the invention with the exception of the heat source being a processor and the second heat dissipating mechanism being a plate located beneath a keyboard.

The patent of Hung et al. discloses that it is known to use a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device as disclosed in Kurusu et al.

The patent of Villaume discloses that it is known to have a heat pipe cooling device and plate located beneath and parallel to a keyboard for the purpose of compactly cooling an electronic device in a laptop computer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. as modified, a heat pipe cooling device and plate located beneath and parallel to a keyboard for the purpose of compactly cooling an electronic device in a laptop computer as disclosed in Villaume.

Claims 17-19, 27 and 31 are rejected under 35 U.S.C. § 103 as being unpatentable over

Art Unit: 3743

Gunnerson et al. in view of Hung et al. The patent of Gunnerson et al. discloses all the claimed features of the invention with the exception of the heat source being an electronic device and the fins welded to the heat pipe.

The patent of Hung et al. discloses that it is known to use a heat pipe thermally coupled to an electronic device, and a heat dissipating plate and fins welded to the heat pipe for the purpose of removing heat from a desired device such as an electronic device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. a heat pipe thermally coupled to an electronic device, a heat dissipating plate and fins welded to the heat pipe for the purpose of removing heat from a desired device such as an electronic device as disclosed in Kurusu et al.

Claims 12, 20, 29 and 32 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. as applied to claims 17-19, 27 and 31 above, and further in view of Feldman, Jr. et al. The patent of Gunnerson et al. as modified, discloses all the claimed features of the invention with the exception of the limited portion comprises a narrowed portion.

The patent of Feldman, Jr. et al. discloses that it is known to use a limited portion of a heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. as modified, a limited portion of a heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe as disclosed in Feldman, Jr. et al.

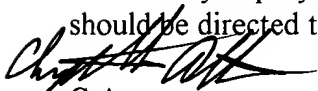
Art Unit: 3743

*Response to Arguments*

Applicant's concerns directed toward the specification objections and 35 U.S.C. 112, first paragraph rejections are not found persuasive. The originally filed specification fails to disclose **the elected species**, as illustrated in figure 4, having the limitations of claims 7-12, 17-21 and 27-32. More specifically, the originally filed specification fails to disclose the elected species having "a third portion ... physically coupled to the second heat dissipating mechanism" as claimed in claim 7; "a first heat dissipation mechanism physically coupled to the first portion of the ... heat pipe" as claimed in claim 17; "a metallic plate physically coupled to a third portion of the heat pipe" as claimed in claim 27; the first thermal conductivity at least twice (claim 8) or is approximately four times (claim 9) the second thermal conductivity; the first heat dissipation mechanism is an active heat dissipation mechanism as claimed in claim 10 and the heat pipe is a single sealed tubular member which is uniformly tubular except for the limited conductivity portion as claimed in claims 12 and 20. None of the claims are generic claims but are claims which read on elected species figure 4 since all claims require the heat pipe to have a limited conductivity/throttling portion (410).

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.

April 21, 2003

CHRISTOPHER ATKINSON  
PRIMARY EXAMINER